

CLAIMS

1. Method of reconstituting the coating of a prestripped optical fiber, characterized in that it comprises the steps consisting in:
- applying a drop of a viscous material, on one end of the stripped region of the fiber (10), at the interface (22) with the remaining initial coating (20), and
 - shaping this drop into a mass (30) which is centered on the axis of the fiber (10) and tapered on going away from the adjacent initial coating (20), before
 - filling the stripped space of the fiber with a mass of material capable of resheathing said fiber.
2. Method according to claim 1, characterized in that the shaping step consists in shaping the drop of viscous material into a mass (30) having a generally frustoconical envelope.
3. Method according to one of claims 1 or 2, characterized in that the aforementioned steps of applying drops of viscous material and of shaping them are carried out on each end of the stripped region of the fiber.
4. Method according to one of claims 1 to 3, characterized in that it consists in repeating several times the steps of applying a drop of viscous material and of shaping it before the filling step is carried out.
5. Method according to one of claims 1 to 4, characterized in that the viscous material is a polymer.
6. Method according to one of claims 1 to 4, characterized in that the viscous material is a silicone.

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7. Method according to one of claims 1 to 6, characterized in that it furthermore includes the step consisting in crosslinking the viscous material before the shaping step.

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8. Method according to one of claims 1 to 7, characterized in that it furthermore includes the prior step consisting in making a sharp cut in the initial coating of the fiber, preferably in a plane orthogonal to the axis of the fiber (10).

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9. Method according to one of claims 1 to 8, characterized in that the stripped region of the fiber (10) has a length of between a few millimeters and a few centimeters.

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10. Method according to one of claims 1 to 9, characterized in that the volume of each drop of viscous material deposited at each application step is of the order of a few mm^3 .

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11. Method according to one of claims 1 to 10, characterized in that the diameter at the base of the cone (30) is around 250 to 350 microns.

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12. Method according to one of claims 1 to 11, characterized in that the apex angle of the cone (30) is around 5 to 70° .

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13. Method according to one of claims 1 to 12, characterized in that the viscosity of the material applied is between 1000 and 10 000 mPa.s.

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14. Method according to one of claims 1 to 13, characterized in that it furthermore includes the step consisting in forming a Bragg grating in the stripped region of the fiber (10) before it is resheathed.

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15. Optical fiber obtained by implementing the method according to one of claims 1 to 14.

5 16. Fiber according to claim 15, characterized in that it comprises two cones (30) respectively adjacent to the end interfaces of a locally removed original coating (20), these being covered with a final resheathing.